Amendments to the Specification

At specification page 22, replace the paragraph beginning with "[t]he present invention may be used not only for pure hemodialysis" with the following replacement paragraph:

The present invention may be used not only for pure hemodialysis, but rather also in the case in which ultrafiltration (Qf>0) and/or hemodiafiltration (Qs>0) are not turned off. As described in the German Patent Application 10212247.4, not only the values for Qd and Qb, but also for Qf and Qs are transmitted to the analysis unit 33 via the line 35 for this purpose. The analysis unit 33 may then determine the diffusive part of the dialysance on the basis of equation ~~(6)~~ (7):

$$Ddiff = \frac{Qb + \kappa Qs}{Qb - Qf - (1-\kappa)Qs}\left(\frac{Qb + \kappa Qs}{Qb} D - Qf - Qs\right) \qquad \text{~~(6)~~ (7)},$$

in which κ=1 for pre-dilution and κ=0 for post-dilution. Subsequently, the membrane exchange coefficient k0A may be determined, for which only the diffusive part of the dialysance is relevant:

$$k0A = \frac{(Qb + \kappa Qs)Qd}{Qd - Qb - \kappa Qs} \ln \frac{\frac{Ddiff}{Qd} - 1}{\frac{Ddiff}{Qb + \kappa Qs} - 1} \qquad \text{~~(7)~~ (8)}$$

Equation ~~(7)~~ (8) corresponds to a generalization of equation (3).